

reviewed. Teeth, skin-prickles, whalebone, parts of skeletons, and their structure are described in their places. The more theoretic subjects of "parallelism in development," the "distribution" of some groups of animals, the "oldest members" of some orders, the "extinction of animals," and "protective resemblances" are duly considered.

The account of Chalk and its associated strata, both in geographical and geological aspects, is interesting and correct; and so is the description of Flint, its nature and origin, in the succeeding chapter. These two essays—on a "lump of chalk" and a "flint-flake,"—together with the preceding Chapter XIX., on "Nummulites and Mountains," and Chapters XV. and XVI., mainly constitute the geological portion of the book, and, with the purely zoological chapters, make a very useful little volume of popular natural history for those whose tastes and studies lead them to the consideration of evolution, development, and mutual relationships of various members of the Animal Kingdom.

It is good and right of accomplished savants to popularize their best-known sciences, and this book is a favourable sample of such a work; but its title is too curt and crude, however desirable it may be to render in an elliptical form the idea of elucidating and illustrating the facts and theories of biology, so far as some of the living animals are concerned, and their relationship to those whose relics are found fossilized in the rocks. A similar, but worse, example of condensing English words is shown by the cramped, ambiguous, and, indeed, self-contradictory phrase "living fossils" for Chapter XV. at page 153.

The figures are mostly good, though not new: but it is time that the Russian Mammoth should be divested of its deceptive hoofs and skin of the head; and certainly the *hocks* in the Indian Elephant, at page 8, bespeak the inaccuracy of the European artist.

#### MISCELLANEOUS.

*Note on Archineura basilactea, Kirby.* By W. F. KIRBY, F.L.S. &c.

I DESCRIBED this species in the 'Annals' for January last (p. 84), and Dr. Karsch now suggests ('Entomologische Nachrichten,' xx. p. 84) that it is the same as his *Echo incarnata* ('Berliner ent. Zeitschrift,' xxxvi. p. 455, 1891), and asks why I did not compare my new genus with the Indian genus *Echo* instead of with the African genus *Sapho*. It is true that the milky-white patch at the base of the wings of my type may assume a rose-red colour with age, and that the nervures, which are reddish in mine, might darken with age. But my species cannot possibly belong to *Echo*; and if Karsch's resembles it in any way I should be greatly surprised at his placing it in *Echo* at all, had he not admitted that he is wholly unacquainted with that genus, for the differences

in neuration are so considerable that I should hardly have thought it worth while to compare my specimen with the description of an insect described as an *Echo* when seeking to identify it. *Echo* has a very short broad oval pterostigma, and *Archineura* a very long narrow one (much longer than in *Sapho longistigma*, De Selys), and the dense reticulation below the lower basal cell is quite different in *Archineura* from either *Echo* or *Sapho*. I need not describe it, for it is shown in my figure and carefully described too; but the nervure bounding the lower basal area of the wing in *Sapho* slopes more obliquely towards the base than even in *Archineura*, while in *Echo* it is much shorter, straighter, and less conspicuous. It was the general character of the neuration which led me to compare *Archineura* with *Sapho* rather than with *Echo*. Karsch makes no mention of the remarkable neuration of the insect in his description, merely noting ordinary details; nor does he allude to the anal appendages. Consequently he gives few data beyond the long pterostigma which would suggest the identity of the two insects.

*Researches on the Structure, Organization, and Classification of the Fossil Reptilia.*—Part IX. Section 2. *On the reputed Mammals from the Karroo Formation of Cape Colony.* By H. G. SEELEY, F.R.S.

The author re-examines the remains of *Theriodesmus*, and contests the interpretation of the carpus given by Professor Bardeleben, producing specimens of South-African Reptiles in which there is a single bone beneath the radius, as in *Theriodesmus*. This character is shown in a small skeleton, at present undescribed, which the author obtained from Klipfontein, Fraserberg, which he regards as referable to a new genus. Other evidence is produced supporting the interpretation of three bones in the proximal row in the carpus, in a specimen from Lady Frere. The author then compares the fore limb of *Theriodesmus* with that of *Parciasaurus*, which was obtained subsequently, and arrives at the conclusion that the types of limb are too closely related to be referred to different orders of animals, and therefore that *Theriodesmus* must be transferred from the Mammalia to the Therosuchia.

The skull described as *Tritylodon longævus* is examined, and its close resemblance to the skulls of new Theriodonts is pointed out. The author believes that it shows evidence of possessing both pre-frontal and post-frontal bones, which were situated as in Theriodonts, and circumscribed the orbits in the same way; so that, although the post-frontal bones appear to have met in the median line to form a crest, at the back of the frontal, there is no other character in the skull by which it can be distinguished from the skull of a Theriodont. It therefore appears to be reptilian, and thus would make known divided roots to the molar teeth in Reptilia, and a more complicated type of crown than in any Theriodont yet known.—*From the Proceedings of the Royal Society.* (Communicated by the Author.)